

New York State Department of Transportation General Bridge Inspection Report

Inspection Date: June 18, 2019

Structure Information

BIN: 3305810

Feature Carried: COUNTY ROAD 153

Feature Crossed: WHITE CREEK

Orientation: 3 - EAST

Region: 01 - ALBANY

County: WASHINGTON

Political Unit: Town of SALEM

Approximate Year Built: 1928

Primary Owner: 30 - County

Primary Maintenance Responsibility: 30 - County

General Type Main Span: A - Unpainted Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 1

Postings

Posted Load Matches Inventory: Yes

Posted Load in field: Not Posted

Posted Vertical Clearances Match Inventory: N/A

Inventory On: Not Posted

Inventory Under: Not Posted

Number of Flags Issued

Red PIA: 0

Red: 0

Yellow: 1

Safety PIA: 0

New York State Inspection Overview

General Recommendation: 4

Federal NBI Ratings

NBI Deck Condition: 7

NBI Superstructure Condition: 7

NBI Substructure Condition: 4

NBI Channel Condition: 5

NBI Culvert Condition: N

Action Items

Non-Structural Condition Observations noted: NO

Vulnerability Reviews Recommended: Steel

Diving Inspection Requested: NO

Further Investigation Requested: NO

Inspector & Reviewer Signature Information

Inspection Signature: Peter Sankey, P.E. 085126-1

Date: November 05, 2019

Review Signature: Louis Rehder, P.E. 077993-1

Date: November 05, 2019

Processed by :

Report Printed: November 08, 2019 12:18:50 PM

Special Emphasis Inspection

Special Emphasis Detail	"Other" Special Emphasis Detail Description	Hands-On Insp Performed	Hands-On Inspection Note
AASHTO Category D, E, and E' welded details	Diaphragms welded to beam webs. Strain gauge previously welded to bottom flange beam 3 and eyelets welded to beam 2 and beam 4 all at midspan.	Yes	2019: All special emphasis details received 100% hands on inspection.

Additional Information

Overloads Observed

No overload vehicles observed during this inspection.

Notes to Next Inspector

BIN plate is located on begin right abutment.
Beam embedment depth is not in plans and is unknown.

Improvements Observed

None

Pedestrian Fence Height

None

Snow Fence

None

Bin Plate Condition

OK

Scour Critical Rating

4 - Foundations stable for conditions; action required

Field Notes

Staff Present During Inspection

Name	Title	Organization
John Forshey	ATL	DOT

General Equipment Required for Inspection*

Access Type
13 - Walking

* For span specific equipment requirements refer to the Active Inventory's "Access Needs" tab in BDIS.

Detailed Time & Weather Conditions

Field Date	Arrival	Departure	Temp (F)	Weather Conditions
06/18/2019	11:00 AM	12:00 PM	69	Cloudy

Inspection Times (hours)

Time required for travel, inspection and report preparation	6
Lane closure usage	None
Railroad flagging time	

Element Quantities

Element Assessment Summary Table

Element	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
60 - Other Deck	1540	ft ²		1540			0
107 - Steel Open Girder/Beam	399	ft	199	200			0
215 - Reinforced Concrete Abutment	153	ft		81	72		0
220 - Reinforced Concrete Pile Cap/Footing	171	ft		66	104		1
330 - Metal Bridge Railing	114	ft		114			0
510 - Wearing Surfaces	1425	ft ²		1400	25		0
515 - Steel Protective Coating	4040	ft ²		2352		1688	0
800 - Erosion or Scour	171	ft		19	152		0
801 - Stream Hydraulics	1	each			1		0
830 - Secondary Members	1	each		1			0
850 - Backwall	78	ft		48	30		0
851 - Abutment Pedestal	14	each		11	3		0
853 - Wingwall	15	ft			15		0

Element Assessment by Span

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
<i>Span Number : 1</i>							
BA215 - Reinforced Concrete Abutment	78	ft		55	23		0
BA220 - Reinforced Concrete Pile Cap/Footing	79	ft		51	27		1
BA800 - Erosion or Scour	79	ft		14	65		0
BA850 - Backwall	39	ft		34	5		0
BA851 - Abutment Pedestal	7	each		6	1		0
BW220 - Reinforced Concrete Pile Cap/Footing	15	ft		15			0
BW800 - Erosion or Scour	15	ft		5	10		0
BW853 - Wingwall	15	ft			15		0
EA215 - Reinforced Concrete Abutment	75	ft		26	49		0
EA220 - Reinforced Concrete Pile Cap/Footing	77	ft			77		0
EA800 - Erosion or Scour	77	ft			77		0
EA850 - Backwall	39	ft		14	25		0
EA851 - Abutment Pedestal	7	each		5	2		0
60 - Other Deck	1540	ft ²		1540			0
510 - Wearing Surfaces	1425	ft ²		1400	25		0
107 - Steel Open Girder/Beam	399	ft	199	200			0

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
515 - Steel Protective Coating	3375	ft ²		1687		1688	0
330 - Metal Bridge Railing	114	ft		114			0
515 - Steel Protective Coating	665	ft ²		665			0
801 - Stream Hydraulics	1	each			1		0
830 - Secondary Members	1	each		1			0

** Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally indicates the element is part of the superstructure.

Inspection Notes

General Comments

None

Element Condition Notes

Span 1: 60 - Other Deck-510 - Wearing Surfaces	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	1425	0	1400	25	0	0
Condition State 3 Note Referenced Photo(s): 1 Referenced Sketch(es): None Asphalt wearing surface right side is rough, and scaled near centerline with some spalling up to 4'L X 1'W X 2"D. There is an old patch near the shoulder that is starting to unravel.						
Span 1: 107 - Steel Open Girder/Beam-515 - Steel Protective Coating	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	3375	0	1687	0	1688	0
Condition State 4 Note Referenced Photo(s): 9, 10 Referenced Sketch(es): None Steel protective coating (patina) on girders has large non-adhering flakes and delaminations on bottom flanges and beam ends, indicating that steel has some continuous surface rusting.						
Span 1: BA215 - Reinforced Concrete Abutment	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	78	0	55	23	0	0
Condition State 3 Note Referenced Photo(s): 2 Referenced Sketch(es): None Begin abutment is delaminated and spalled on most of its surface, worst at begin left where the spalling is up to 12'W X 8'H X up to 6"D. Condition is similar to 2018 inspection.						
Span 1: EA215 - Reinforced Concrete Abutment	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	75	0	26	49	0	0
Condition State 3 Note Referenced Photo(s): 11, 13, 14, 15, 16, 17, 18 Referenced Sketch(es): None End Right Abutment / wingwall is spalled over most of the surface from right fascia girder right to the end of the wingwall, up to 8'H X 6"D. There is also a large, full-height crack under G4. Conditions appear similar to the last inspection in 2018. There is heavy spalling and cracking adjacent to both fascia girders on end abutment, See Yellow Flag 1B19RPW008.						

Span 1: BA220 - Reinforced Concrete Pile Cap/Footing	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	79	0	51	27	0	1
Condition State 3 Note Referenced Photo(s): 3 Referenced Sketch(es): None						
Begin left abutment footing / overpour is exposed and exhibiting heavy delaminations with spalling up to full length x 6"D. The right side portion is protected by steel sheeting.						
Span 1: EA220 - Reinforced Concrete Pile Cap/Footing	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	77	0	0	77	0	0
Condition State 3 Note Referenced Photo(s): 15 Referenced Sketch(es): None						
End left and right abutment footings are heavily scaled / spalled up to 4"D on vertical and horizontal faces, with exposed aggregate. Near center of bridge the exposed footing is completely spalled to streambed X 25"W . Remaining concrete is solid.						
Span 1: BA800 - Erosion or Scour	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	79	0	14	65	0	0
Condition State 3 Note Referenced Photo(s): 3, 8 Referenced Sketch(es): None						
The stream approaches towards the end left abutment and is redirected towards the begin abutment, causing scour along both of these areas. Worst scour is at the Begin Right Corner to a depth of 3.5'; steel sheeting protects this corner, no undermining. This is approximately 1' deeper than the 2018 inspection.						
Span 1: EA800 - Erosion or Scour	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	77	0	0	77	0	0
Condition State 3 Note Referenced Photo(s): 13, 15 Referenced Sketch(es): None						
Stream approaches towards the end left abutment and is redirected towards the begin abutment, causing scour along both of these areas. Scour is full abutment length X up to 1.5'D at the end left corner, no undermining.						
Span 1: BW800 - Erosion or Scour	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	15	0	5	10	0	0
Condition State 3 Note Referenced Photo(s): 8 Referenced Sketch(es): None						
The stream approaches towards the end left abutment and is redirected towards the begin abutment, causing scour along both of these areas. Worst scour is at the Begin Right Corner of abutment with the wingwall to a depth of 3.5'; steel sheeting protects this corner, no undermining. This is approximately 1' deeper than the 2018 inspection.						
Span 1: 801 - Stream Hydraulics	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	1	0	0	1	0	0
Condition State 3 Note Referenced Photo(s): 7, 19 Referenced Sketch(es): None						
The stream approaches towards the end left abutment and is redirected towards the begin abutment, causing scour along both of these areas and depositing silt and gravel along the End Abutment						

Span 1: BA850 - Backwall	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	39	0	34	5	0	0
Condition State 3 Note Referenced Photo(s): 4 Referenced Sketch(es): None						
Begin backwall bay #2 is cracked, delaminated and spalled full bay width x full bay height x up to 2"D, similar to 2018 inspection.						
Span 1: EA850 - Backwall	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	39	0	14	25	0	0
Condition State 3 Note Referenced Photo(s): 12, 16 Referenced Sketch(es): None						
End abutment backwall is cracked, delaminated and starting to spall up to 2"D in all bays. There is heavy spalling and cracking adjacent to both fascia girders on end abutment, See Yellow Flag 1B19RPW008.						
Span 1: BA851 - Abutment Pedestal	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	7	0	6	1	0	0
Condition State 3 Note Referenced Photo(s): 5 Referenced Sketch(es): None						
Left fascia pedestal is spalled 11W X 1'H X up to 1"D, remaining concrete is sound. Similar to the last inspection in 2018.						
Span 1: EA851 - Abutment Pedestal	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	7	0	5	2	0	0
Condition State 3 Note Referenced Photo(s): 11, 14, 16, 17, 18 Referenced Sketch(es): None						
There is heavy spalling and cracking adjacent to both fascia girders on end abutment, See Yellow Flag 1B19RPW008.						
Span 1: BW853 - Wingwall	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
	15	0	0	15	0	0
Condition State 3 Note Referenced Photo(s): 6 Referenced Sketch(es): None						
Begin right wingwall is cracked and delaminated over most of its surface, with spalling in various locations up to 3"D.						

Inspection Photographs

Photo Number: 1

Photo Filename: IMG_5047.JPG

Attachment Description:
Left Wearing Surface Mid-Span



Photo Number: 2

Photo Filename: IMG_5048.JPG

Attachment Description:
Begin Left Abutment



Photo Number: 3

Photo Filename: IMG_5049.JPG

Attachment Description:
Begin Abutment Footing /
Scour



Photo Number: 4

Photo Filename: IMG_5050.JPG

Attachment Description:
Begin Abutment Bay 2
Backwall



Photo Number: 5

Photo Filename: IMG_5051.JPG

Attachment Description:
Begin Abutment Left Fascia
Pedestal



Photo Number: 6

Photo Filename: IMG_5052.JPG

Attachment Description:
Begin Right Wingwall



Photo Number: 7

Photo Filename: IMG_5053.JPG

Attachment Description:
Waterway Opening @ End
Abutment



Photo Number: 8

Photo Filename: IMG_5054.JPG

Attachment Description:
Begin Right Abutment /
Wingwall Scour



Photo Number: 9

Photo Filename: IMG_5055.JPG

Attachment Description:
Begin Right Girders Steel
Protective Coating



Photo Number: 10

Photo Filename: IMG_5056.JPG

Attachment Description:
Girder 4 End Steel
Protective Coating



Photo Number: 11 Photo Filename: IMG_5057.JPG

Attachment Description:
End Right Abutment / Right
Fascia Pedestal



Photo Number: 12 Photo Filename: IMG_5058.JPG

Attachment Description:
End Abutment Bay 4
Backwall



Photo Number: 13 Photo Filename: IMG_5059.JPG

Attachment Description:
End Left Abutment / Scour



Photo Number: 14 Photo Filename: IMG_5060.JPG

Attachment Description:
End Right Abutment / Right
Fascia Pedestal



Photo Number: 15

Photo Filename: IMG_5061.JPG

Attachment Description:
End Left Abutment / Footing
/ Scour



Photo Number: 16

Photo Filename: IMG_5062.JPG

Attachment Description:
End Left Abutment /
Backwall / Left Fascia
Pedestal



Photo Number: 17

Photo Filename: IMG_5063.JPG

Attachment Description:
End Left Upper Abutment /
Left Fascia Pedestal



Photo Number: 18

Photo Filename: IMG_5064.JPG

Attachment Description:
End Left Upper Abutment /
Left Fascia Pedestal



Photo Number: 19

Photo Filename: IMG_5065.JPG

Attachment Description:
Waterway Opening @ End
Abutment



Inspection Sketches

Sketch Number: 1

Sketch Filename: 2019 photo location map.JPG

BD 186(3/04)

NYS DEPT. OF TRANSPORTATION

BIN: 17 / 3-30581-0

DATE: 6/18/2019

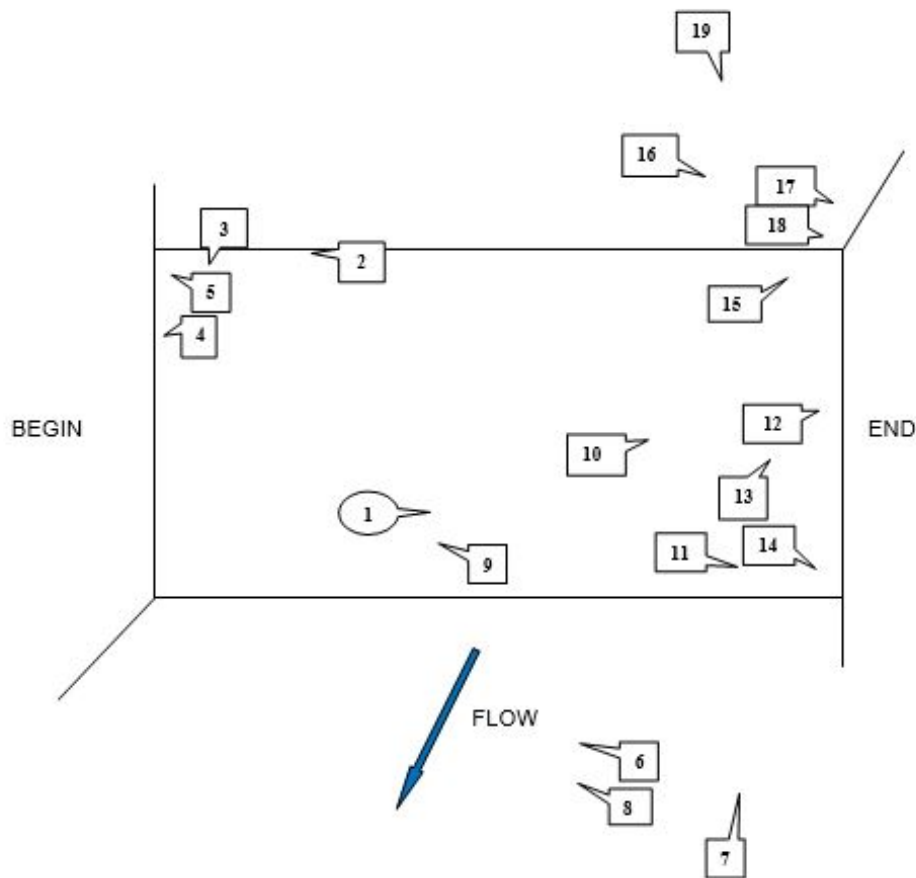
FEATURE CARRIED: CR 153

FEATURE CROSSED: WHITE CREEK

PHOTO ABOVE DECK



PHOTO BELOW DECK



Sketch Description: 2019 photo location map

Sketch Number: 3

Sketch Filename: 2019 channel cross-sections along fascias.JPG

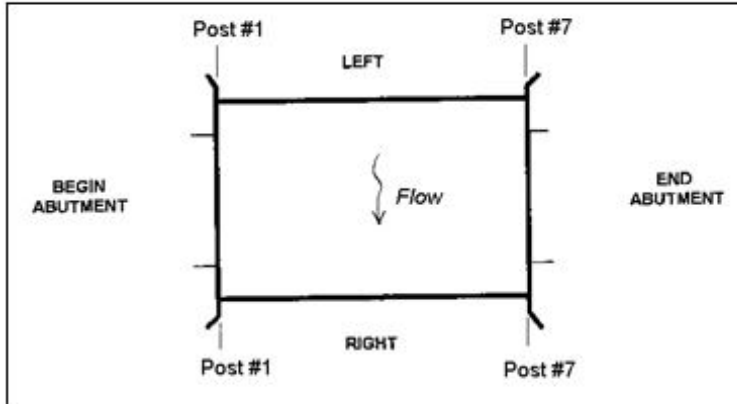
SD 227

NYS DOT BRIDGE INSPECTION REPORT			
SHEET	1	OF	2

CHANNEL CROSS-SECTIONS
ALONG FASCIAS (FEET)

Insp. Date:	6/18/2019	BIN:	3305810
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CHANNEL CROSS-SECTIONS ALONG FASCIAS: (feet)



REFERENCE	YEAR	NOTES
	2015	Readings taken to top of rail. Rail height = 2.9'. Begin footing exposed full length. End footing exposed at left wingwall & most of abutment. Water clear, minor scour with no significant changes from previous readings.
	2016	Water clear, <1.5' deep with no significant changes from previous readings. Abutment footings exposed with minor scour at begin right and end left.
	2017	Water clear, <1.5' deep with no significant changes from previous readings. Abutment footings exposed with minor scour at begin right and end left.
	2018	no significant changes from previous readings. Abutment footings exposed with minor scour at begin right and end left.
	2019	Water clear. Some minor changes to left and right-side readings. Right side readings at rail post 2 1.2' deeper. Water @ rail post 2 right side 2.0'. Abutment footings exposed with minor scour at begin right and end left.

Sketch Description: 2019 channel cross-sections along fascias

Sketch Number: 4

Sketch Filename: 2019 hva form.JPG

NYSDOT BRIDGE SAFETY ASSURANCE

HVA REVIEW FORM

Inspection Date: 6/18/2019

BIN: 3305810

	ELEMENT	DEFECT		CONDITION STATES (CS)			HVA REQUIRED (?)
				Initial Assessed	Previous Inspection	Current Inspection	
				6/18/2018	6/18/2018	6/18/2019	
1	800	6000	Substructure Scour (Report worst CS when more than 10% of substructure has CS 3 and 4)	3	3	3	YES
2	801	6120	Channel Alignment	3	3	3	
		6130	Channel Scour	3	3	3	
		6140	Waterway Opening	2	2	2	
		6150	Scour Protection				
		6160	Bank Protection				
		6165	Bank Erosion	2	2	2	
		6180	Debris Near Bridge	1	1	2	
		6190	Countermeasures				
Sum of Change(s) of (-/+ 4) in 800 and/or 801 Elements							
3	Is recent stream work evident or have scour countermeasure been installed?			NO			
4	Is there any reason the current FHWA 113 Code should be changed?			NO			
5	Has a hydraulic-related flag(s) been issued or removed?			NO			

Inspector's Comment:

Comment: Scour protection begin abutment sheet piling

Team Leader:

Date:

Regional Hydraulics Engineer's Comment:

Enter comment here

Reg. Hydraulics Engineer:

Date:

(updated 4/1/2016)

Sketch Description: 2019 hva form

New York State Department of Transportation Yellow Flag 1B19RPW008

By: Peter Sankey

Flag Date: June 18, 2019

Superseding Information:

This flag supersedes: YF 1B18QXW011

Structure Information

BIN: 3305810

Feature Carried: COUNTY ROAD 153

Feature Crossed: WHITE CREEK

Orientation: 3 - EAST

Region: 01 - ALBANY

County: WASHINGTON

Political Unit: Town of SALEM

Approximate Year Built: 1928

Posted Load Matches Inventory: N/A

Posted Load in field : Not Posted for Load

Primary Owner: 30 - County

Primary Maintenance Responsibility: 30 - County

Typical or Main Span Type: A - Unpainted Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 1

Verbal Notification Information

Person Notified: Not Contacted

Date:

Of:

Signature Information

Signature: Peter Sankey, P.E. 085126-1

Date: June 19, 2019

Reviewed By: Louis Rehder

Date: June 25, 2019

Attachments: 5

Yellow Flag 1B19RPW008

BIN 3305810

Flag Date: June 18, 2019

Flagged Elements

Parent Element	Element	Total Quantity	Unit
<i>Span Number : 1</i>			
	EA215 - Reinforced Concrete Abutment	75	ft
	EA850 - Backwall	39	ft
	EA851 - Abutment Pedestal	7	each

Flagged Condition Description

End Abutment Left Side at Left Fascia Girder:

Abutment / Wingwall is cracked, delaminated and spalled over most of its surface. The spall is up to 16"L X full abutment height X up to 1"D; worst along the top 5' of the abutment, exposing original backwall at left edge of girder. Embedment depth is unknown, concrete cover to the left of left fascia girder is 1.5'W ft wide (measured perpendicularly from left web face) x 2.75'H x unknown depth. Embedment cover over left side of left fascia girder has cracks that run from both top and bottom flanges to left face of backwall and vertical crack. Bottom 6' of spall is less deep with a maximum spall depth of up to 6". Spall undermines left fascia girder for full-girder width x 6"H X up to 1"D; remaining concrete in this vicinity is sound. A crack runs adjacent to left fascia girder down diagonally through spall to footing. These conditions appear similar to the last inspection in 2018.

End Abutment Right Side at Right Fascia Girder:

Abutment / Wingwall is delaminated and spalled. Delaminations and spalls extend from under right fascia girder to end of abutment / wingwall. The spall is up to 18'L X 6'H X up to 8"D. Spall undermines right fascia girder for full girder width x 3"D; remaining concrete in the vicinity is sound. Embedment length of Girders is unknown. These conditions appear similar to the last inspection in 2018.

Yellow Flag 1B19RPW008

BIN 3305810

Flag Date: June 18, 2019

Flag Photographs

Photo Number: **1**

Photo Filename: **End Left Abutment - Backwall - Fascia Pedestal.JPG**



Attachment Description: End Left Abutment, Backwall and Pedestal

Yellow Flag 1B19RPW008

BIN 3305810

Flag Date: June 18, 2019

Photo Number: 2

Photo Filename: End Left Abutment.JPG



Attachment Description: End Left Abutment, Backwall and Pedestal Close up

Yellow Flag 1B19RPW008

BIN 3305810

Flag Date: June 18, 2019

Photo Number: 3

Photo Filename: End Left Abutment - Fascia Pedestal.JPG



Attachment Description: End Left Abutment and Pedestal

Yellow Flag 1B19RPW008

BIN 3305810

Flag Date: June 18, 2019

Photo Number: 4

Photo Filename: End Right Abutment-FasciaPedestal.JPG



Attachment Description: End Right Abutment and Pedestal

Yellow Flag 1B19RPW008

BIN 3305810

Flag Date: June 18, 2019

Photo Number: 5

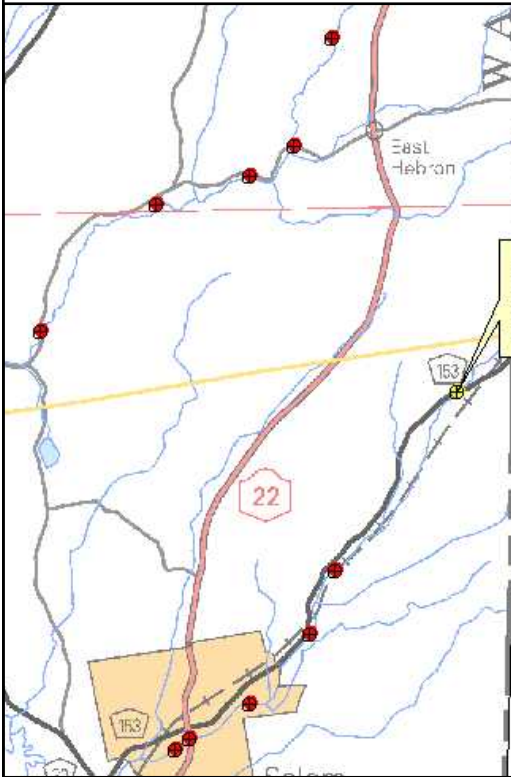
Photo Filename: end right abutment - fascia pedestal.JPG



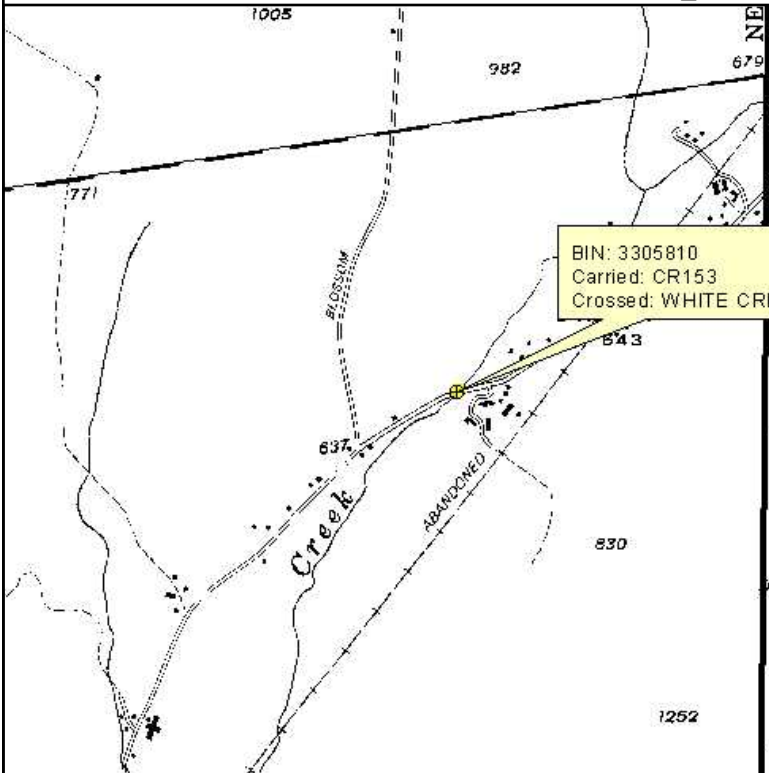
Attachment Description: End Right Abutment, Backwall and Pedestal

Standard Photographs

3305810_LOCATION_MAP.JPG



3305810_QUAD_MAP.JPG



AbutmentBegin.JPG



AbutmentEnd.JPG



ApproachBegin.JPG



ApproachEnd.JPG



ElevationLeft.JPG



ElevationRight.JPG



FeatureCrossedLeft.JPG



FeatureCrossedRight.JPG



Framing.JPG

